

**DENR USE ONLY**

☐ Paper Report

☐ Electronic Data - Email CD (data loaded: Yes / No)

Doc/Event #:

NC DENR

Division of Waste Management - Solid Waste

## Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

### Instructions:

- Prepare one form for each individually monitored unit.
- Please type or print legibly.
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i)).
- In accordance with NC General Statutes Chapter 89C and 89E and NC Solid Waste Management Rules 15A NCAC 13B, be sure to affix a seal to the bottom of this page, when applicable.
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

### Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

WEYERHAEUSER CELLULOSE FIBERS FACILITY

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: DAVID F. GARDNER

Phone: 252.633.7427

E-mail: dave.gardner@weyerhaeuser.com

Facility name:

WEYERHAEUSER  
CELLULOSE FIBERS

Facility Address:

P.O. Box 1391  
NEW BERN, NC 28562

Facility Permit #

2502

NC Landfill Rule:  
(.0500 or .1600)

NC 2 L STD  
NC GWP STD

Actual sampling dates (e.g.,  
October 20-24, 2006)

FEB. 21, 2008

### Environmental Status: (Check all that apply)

- ☐ Initial/Background Monitoring ☒ Detection Monitoring ☐ Assessment Monitoring ☐ Corrective Action

### Type of data submitted: (Check all that apply)

- ☒ Groundwater monitoring data from monitoring wells ☐ Methane gas monitoring data  
☐ Groundwater monitoring data from private water supply wells ☐ Corrective action data (specify) \_\_\_\_\_  
☐ Leachate monitoring data ☐ Other(specify) \_\_\_\_\_  
☐ Surface water monitoring data

### Notification attached?

- ☐ No. No groundwater or surface water standards were exceeded.  
☒ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.  
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

### Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

DAVID F. GARDNER

ENVIRONMENTAL MANAGER

Facility Representative Name (Print)

Title

(Area Code) Telephone Number

252.633.7427

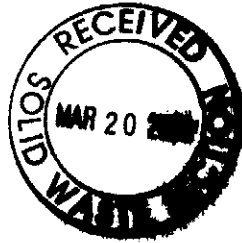
David F. Gardner

March 19, 2008

Signature

Date

Affix NC Licensed/ Professional Geologist/Engineer Seal here:



Weyerhaeuser Company  
PO Box 1391  
New Bern, NC 28562  
David F. Gardner  
Environmental and Security Manager  
Office: (252) 633-7427  
Cell: (252) 229-0982  
FAX: (252) 633-7560  
e-mail: [dave.gardner@weyerhaeuser.com](mailto:dave.gardner@weyerhaeuser.com)

March 19, 2008

Compliance Unit NCDENR-DWM  
Solid Waste Section  
1646 Mail Service Center  
Raleigh, NC 27699-1646  
Attn: Irvin Lane

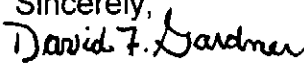
**CERTIFIED MAIL**  
**7005-2570-0001-8907-5549**

Re; Groundwater Monitoring Data  
Landfill # 2502  
Craven County

To Whom It May Concern:

Please find enclosed a completed copy of the **Environmental Monitoring Report Form** and a completed **Table of Values Which Exceed Established Standards and/or Exceed Reporting Levels** for the Weyerhaeuser Cellulose Fiber Facility located in New Bern Craven County, NC.

Should you have any questions or comments concerning these data please feel free to contact me?

Sincerely,  
  
David F. Gardner  
Environmental Manager

J. Ashley  
R. Brinson

Lab ID# 6017Page: 1/1

# Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

ID#: 6017

WEYERHAEUSER, NEW BERN (LANDFILL)  
MR. DAVE GARDNER  
P.O. BOX 1391  
NEW BERN, NC 28560

DATE COLLECTED: 02/21/08  
DATE REPORTED : 03/14/08

REVIEWED BY: 

| PARAMETERS                    | MDL  | Leachate |        | OWS1   | OWS2    | OWS3   | OWD1   | Analysis |         | Method     |
|-------------------------------|------|----------|--------|--------|---------|--------|--------|----------|---------|------------|
|                               |      | SWSL     | Canal  |        |         |        |        | Date     | Analyst |            |
| PH (field measurement), Units |      |          | 7.9    | 6.3    | 6.8     | 6.1    | 6.8    | 02/21/08 | RJH     | SM4500HB   |
| Sulfate, mg/l                 | 5.0  | 250.0    | 72.4 J | --- U  | 190.6 J | 30.8 J | 37.7 J | 02/25/08 | TRB     | SM4500-SO4 |
| Antimony, ug/l                | 0.08 | 6.0      | 0.3 J  | --- U  | 0.6 J   | --- U  | --- U  | 02/28/08 | LFJ     | EPA200.8   |
| Arsenic, ug/l                 | 0.07 | 10.0     | 0.6 J  | 3.6 J  | 0.8 J   | 8 J    | 3.5 J  | 02/28/08 | LFJ     | EPA200.8   |
| Barium, ug/l                  | 0.11 | 100.0    | 18.9 J | 36.6 J | 115     | 70.5 J | 78.4 J | 02/22/08 | LFJ     | EPA200.8   |
| Beryllium, ug/l               | 0.06 | 1.0      | --- U  | 0.1 J  | --- U   | --- U  | --- U  | 02/28/08 | LFJ     | EPA200.8   |
| Cadmium, ug/l                 | 0.04 | 1.0      | --- U  | 0.1 J  | 0.1 J   | 0.1 J  | 0.1 J  | 02/28/08 | LFJ     | EPA200.8   |
| Cobalt, ug/l                  | 0.03 | 10.0     | 0.4 J  | 3.0 J  | 0.5 J   | 3.9 J  | 8.7 J  | 02/28/08 | LFJ     | EPA200.8   |
| Copper, ug/l                  | 0.05 | 10.0     | 1.7 J  | 1.0 J  | 1.9 J   | 4.1 J  | 0.4 J  | 02/28/08 | LFJ     | EPA200.8   |
| Total Chromium, ug/l          | 0.11 | 10.0     | --- U  | 1.8 J  | 0.2 J   | --- U  | --- U  | 02/28/08 | LFJ     | EPA200.8   |
| Lead, ug/l                    | 0.04 | 10.0     | 0.1 J  | 0.7 J  | 0.3 J   | 0.2 J  | 0.3 J  | 02/28/08 | LFJ     | EPA200.8   |
| Nickel, ug/l                  | 0.06 | 50.0     | 5.8 J  | 1.8 J  | 7.9 J   | 3.5 J  | 5.2 J  | 02/28/08 | LFJ     | EPA200.8   |
| Selenium, ug/l                | 0.14 | 10.0     | --- U  | --- U  | --- U   | --- U  | --- U  | 02/28/08 | LFJ     | EPA200.8   |
| Silver, ug/l                  | 0.04 | 10.0     | --- U  | --- U  | 0.1 J   | 0.1 J  | --- U  | 02/28/08 | LFJ     | EPA200.8   |
| Thallium, ug/l                | 0.04 | 5.0      | --- U  | 0.1 J  | --- U   | --- U  | 0.5 J  | 02/28/08 | LFJ     | EPA200.8   |
| Vanadium, ug/l                | 0.07 | 25.0     | 8.4 J  | 7.9 J  | 23 J    | 3.2 J  | 1.1 J  | 02/28/08 | LFJ     | EPA200.8   |
| Zinc, ug/l                    | 0.04 | 10.0     | 3.7 J  | 3.7 J  | 3.6 J   | 3.4 J  | 3.4 J  | 02/28/08 | LFJ     | EPA200.8   |
| Conductivity (at 25c), uMhos  | 1.0  | 1.0      | 1005   | 242    | 1379    | 693    | 727    | 02/21/08 | RJH     | SM2510B    |
| Temperature, °C               |      |          | 6      | 9      | 11      | 14     | 14     | 02/21/08 | RJH     | SM2550B    |
| Static Water Level, feet      |      |          |        | 3.83   | 9.00    | 7.40   | 9.10   | 02/21/08 | RJH     |            |
| Well Depth, feet              |      |          |        | 13.96  | 14.36   | 16.23  | 26.43  | 02/21/08 | RJH     |            |

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

# Environment 1, Incorporated

P.O. BOX 7085, 114 OAKMONT DRIVE  
GREENVILLE, N.C. 27835-7085

PHONE (252) 756-6208  
FAX (252) 756-0633

CLIENT: WEYERHAEUSER, NEW BERN (LANDFILL)  
MR. DAVE GARDNER  
P.O. BOX 1391  
NEW BERN, NC 28560

CLIENT ID: 6017

ANALYST: MAO  
DATE COLLECTED: 02/21/08  
DATE ANALYZED: 02/29/08  
DATE REPORTED: 03/14/08

Page: 1

REVIEWED BY: 

## VOLATILE ORGANICS EPA METHOD 8260B

| PARAMETERS, ug/l                | MDL  | SWSL  | Leachate<br>Canal | OWS1   | OWS2   | OWS3   | OWD1   |
|---------------------------------|------|-------|-------------------|--------|--------|--------|--------|
| 1. Chloromethane                | 0.18 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 2. Vinyl Chloride               | 0.34 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 3. Bromomethane                 | 0.26 | 10.0  | --- U             | --- U  | --- U  | --- U  | --- U  |
| 4. Chloroethane                 | 0.29 | 10.0  | --- U             | --- U  | --- U  | --- U  | --- U  |
| 5. Trichlorofluoromethane       | 0.13 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 6. 1,1-Dichloroethene           | 0.14 | 5.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 7. Acetone                      | 1.21 | 100.0 | 2.90 J            | 3.40 J | 2.60 J | 5.70 J | 3.50 J |
| 8. Iodomethane                  | 0.12 | 10.0  | --- U             | --- U  | --- U  | --- U  | --- U  |
| 9. Carbon Disulfide             | 0.14 | 100.0 | --- U             | --- U  | --- U  | --- U  | --- U  |
| 10. Methylene Chloride          | 0.14 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 11. trans-1,2-Dichloroethene    | 0.13 | 5.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 12. 1,1-Dichloroethane          | 0.16 | 5.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 13. Vinyl Acetate               | 0.20 | 5.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 14. Cis-1,2-Dichloroethene      | 0.14 | 5.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 15. 2-Butanone                  | 0.85 | 100.0 | --- U             | --- U  | --- U  | --- U  | --- U  |
| 16. Bromochloromethane          | 0.11 | 3.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 17. Chloroform                  | 0.13 | 5.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 18. 1,1,1-Trichloroethane       | 0.11 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 19. Carbon Tetrachloride        | 0.13 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 20. Benzene                     | 0.16 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 21. 1,2-Dichloroethane          | 0.12 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 22. Trichloroethene             | 0.13 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 23. 1,2-Dichloropropane         | 0.17 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 24. Bromodichloromethane        | 0.13 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 25. Cis-1,3-Dichloropropene     | 0.17 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 26. 4-Methyl-2-Pentanone        | 0.68 | 100.0 | --- U             | --- U  | --- U  | --- U  | --- U  |
| 27. Toluene                     | 0.13 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 28. trans-1,3-Dichloropropene   | 0.14 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 29. 1,1,2-Trichloroethane       | 0.20 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 30. Tetrachloroethene           | 0.16 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 31. 2-Hexanone                  | 1.00 | 50.0  | --- U             | --- U  | --- U  | --- U  | --- U  |
| 32. Dibromochloromethane        | 0.14 | 3.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 33. 1,2-Dibromoethane           | 0.13 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 34. Chlorobenzene               | 0.13 | 3.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 35. 1,1,1,2-Tetrachloroethane   | 0.14 | 5.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 36. Ethylbenzene                | 0.16 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 37. Xylenes                     | 0.48 | 5.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 38. Dibromomethane              | 0.17 | 10.0  | --- U             | --- U  | --- U  | --- U  | --- U  |
| 39. Styrene                     | 0.16 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 40. Bromoform                   | 0.11 | 3.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 41. 1,1,2,2-Tetrachloroethane   | 0.16 | 3.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 42. 1,2,3-Trichloropropane      | 0.06 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 43. 1,4-Dichlorobenzene         | 0.21 | 1.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 44. 1,2-Dichlorobenzene         | 0.13 | 5.0   | --- U             | --- U  | --- U  | --- U  | --- U  |
| 45. 1,2-Dibromo-3-Chloropropane | 0.26 | 13.0  | --- U             | --- U  | --- U  | --- U  | --- U  |
| 46. Acrylonitrile               | 1.49 | 200.0 | --- U             | --- U  | --- U  | --- U  | --- U  |
| 47. trans-1,4-Dichloro-2-Butene | 0.14 | 100.0 | --- U             | --- U  | --- U  | --- U  | --- U  |

J = Between MDL and SWSL, U = Below ALL Quantitation Limits.

## CHAIN OF CUSTODY RECORD

Phone (252) 756-6208 • Fax (252) 756-0633

**CLIENT: 6017** **Week: 6**

WEYERHAEUSER, NEW BERN (LANDELL  
MR. DAVE GARDNER  
P.O. BOX 1391  
NEW BERN NC 28560

**(252) 633-7427**

[illegible]

Instructions for completing this form are on the reverse side

FORM #5

Sampler must place a "C" for composite sample or a "G" for Grab sample in the blocks above for each parameter requested

**№ 159149**

# Environment 1, Inc.

|  |                                      |                                      |
|--|--------------------------------------|--------------------------------------|
| <b>Sampled By</b> <input checked="" type="checkbox"/> Bob Hilgoe <input checked="" type="checkbox"/> Bobby Fox<br>Other: | <b>Facility</b> <u>NEW BERN N.C.</u> | <b>Site ID</b> <u>6017</u>           |
|  | <b>Project No.</b>                   | <b>Date (m/d/y)</b> <u>FEB 21 08</u> |

**Site Description** ☒ Monitoring Well ☐ Extraction Well ☐ Irrigation Well ☐ Spring ☐ Borehole ☐ Probe Other:

**Air Temp:** 38 °C ☐ °F **Weather:** CLEAR

**Well Locked?** ☒ yes ☐ no **Damaged/Repairs Needed:**

**x TOC Description:**

**TOC Stickup:** 2.44 ft. ☒ above/below ground **Well Inside Diameter (ID):** ☒ 2-inch ☐ 4-inch Other:

**Site Remarks** (nearby wells pumping, tide, stream stage, etc.)

**Water Level Data** Measurement Units: ft. Well or Borehole Total Depth (TD) from TOC: 13.96

| <input checked="" type="checkbox"/> E-Tape, # 2<br><input type="checkbox"/> Steel Tape <input type="checkbox"/> Other | Pre-Purge Initial | Pre-Purge Confirmation | Purging Start | During Purging | Purging End | After Sampling | Remarks |
|---|-------------------|------------------------|---------------|----------------|-------------|----------------|---------|
| Time (hh:mm; 24-hr clock)   | 0955              | 0955                   | 0956          | 1003           | 1004        | 1006           |         |
| Depth to Water  | 3.83              | 3.83                   | 3.83          | 3.91           | 3.94        | 3.95           |         |
| Tape Correction   |                   |                        |               |                |             |                |         |
| Water Level (WL)  | 3.83              | 3.83                   | 3.83          | 3.91           | 3.94        | 3.95           |         |
| Product Thickness   |                   |                        |               |                |             |                |         |
| Product Recovery<br><input type="checkbox"/> gallons <input type="checkbox"/> liters                                  |                   |                        |               |                |             |                |         |

Measure water level from fixed measuring point (MP) or top of well casing (TOC). Record water depth to nearest 0.01 ft or 0.002 m, with minus (-) sign if level is above MP or TOC. If no mark on MP or TOC, measure water level from north side of casing. Measure static or pre-purging water level twice; record initial and confirmation measurements and measurement times (in 24-hour clock format). MP/TOC Stickup measurement is from ground surface to nearest 0.1 ft or 0.01 m. Depth to Water codes: N - not measured; D - dry; O - obstructed; P - pumping; F - flowing (artesian well); R - recently pumped; C - cascading. Water Level (WL) = Depth to Water - Tape Correction factor. Record free product presence at time of water level measurement; use "S" for free product thickness if sheen observed. If free product removed from well, record volume removed in gallons or liters, list product type in "Remarks" column.

**Field WQ Data** Purge Depth: 3.83 ☐ Grab ☐ Bailer ☒ Pump Description:

| Casing Volume: <u>1396</u> (ft) - (WL) • (Well ID) <sup>2</sup> • (Conversion Factor) = <u>1.65</u> gals                     |         |            |         |  |  |  | Well Goes Dry While Purging <input type="checkbox"/> |  |
|--|---------|------------|---------|--|--|--|--|--|
| Conversion Factor = 0.0408 for feet and gallons; 0.1544 for feet and liters; 0.5066 for meters and liters; Well ID in inches |         |            |         |  |  |  |  |  |
| <input type="checkbox"/> Cum. Vol. Purged<br><input type="checkbox"/> Pumping Rate   | (Final) | Meter Type | Remarks |  |  |  |  |  |
| Time (hh:mm; 24-hr clock)  | 1000    | 1003       | 1004    |  |  |  |  |  |
| pH (Temperature Corrected? <input type="checkbox"/> )  | 6.49    | 6.36       | 6.3     |  |  |  |  |  |
| Temperature, °C  | 9       | 8          | 9       |  |  |  |  |  |
| Dissolved Oxygen mg/L  |         |            |         |  |  |  |  |  |
| S Conductivity μS/cm   | 240     | 239        | 242     |  |  |  |  |  |
| Turbidity <input type="checkbox"/> NTU   |         |            |         |  |  |  |  |  |
| Color/Tint   | YES     | YES        | YES     |  |  |  |  |  |
| Odor   | NO      | NO         | NO      |  |  |  |  |  |

Record time purging starts and ends in "Purging Start" and "Purging End" columns in Water Level Data section. Cum. Vol. Purged: cumulative volume removed before sampling, in gallons or liters. Pumping Rate is gpm or Lpm, depending on box checked in casing volume calculation. Use "Final" column above for recording sample field measurements, total volume purged before sampling or average pumping rate during purging. Record equipment calibration methods, decontamination procedures, equipment failures, purge water disposal method, etc. In daily field notes. SC: Specific Conductance corrected for temperature (μS/cm at 25°C); EC: Electrical Conductivity not corrected for temperature (μS/cm). μS/cm = μmho/cm. 1 gallon (US) = 3.785 L = 0.833 Imperial gallon

**Sample Data** Sample Depth: 3.95 ☐ Grab ☐ Bailer ☒ Pump Description:

| Field Sample ID<br>(unique ID on bottles) | Result Code | Date<br>(m/d/y) | Time<br>(hh:mm) | Bottles<br>(total to lab) | Filtered<br>(0.45 μm) | Lab ID | Case ID | SDG ID | Remarks |
|---|-------------|-----------------|-----------------|---------------------------|-----------------------|--------|---------|--------|---------|
| <u>aws 1</u>                              |             | <u>02/21/08</u> | <u>1006</u>     | <u>6</u>                  |                       |        |         |        |         |
|   |             |                 |                 |                           |                       |        |         |        |         |
|   |             |                 |                 |                           |                       |        |         |        |         |
|   |             |                 |                 |                           |                       |        |         |        |         |

Sample ID may be up to 15 characters. Sample Result Code, Date, and Time must be entered. Result Codes: P0, Primary Sample; D#, Duplicate Sample; S#, Split Sample (sent to second lab); BF#, Field Blank; BR#, Equipment Rinsate; BT#, Trip Blank; SF#, Field Spike (# = 1 to 9). Lab ID (up to 5 characters) is name of laboratory that will analyze the sample. Case ID (up to 5 characters) and SDG ID (sample delivery group, up to 15 characters) are required for blanks. Case ID may be the lab service request number or yy-mm. SDG may be lab's SDG, a cooler ID number, or mmdyyy. Enter sample preservation and handling data on chain-of-custody form. Also record detailed information about duplicate, split, rinsate, spike, and/or blank sample collection/handling in daily field notes.

|  |                                     |
|--|-------------------------------------|
| <b>Sampler's Name (print)</b> <u>H. L. Goode / Fox</u> | <b>Signature</b> <u>[Signature]</u> |
|--|-------------------------------------|

# Environment 1, Inc.

|   |                               |                               |
|---|-------------------------------|-------------------------------|
| Sampled By <input checked="" type="checkbox"/> Bob Hilgoe <input checked="" type="checkbox"/> Bobby Fox<br>Other: | Facility <u>NEW BERN N.C.</u> | Site ID <u>6017</u>           |
|   | Project No.                   | Date (m/d/y) <u>FEB 21 08</u> |

**Site Description** ☒ Monitoring Well ☐ Extraction Well ☐ Irrigation Well ☐ Spring ☐ Borehole ☐ Probe Other:

|   |  |
|---|--|
| Air Temp: <u>36</u> °C <input type="checkbox"/> °F                                  | Weather: <u>CLEAR</u>  |
| Well Locked? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no    | Damaged/Repairs Needed:  |
| x TOC Description:  |  |
| TOC Stickup: <u>2.17</u> ft. <input checked="" type="checkbox"/> above/below ground | Well Inside Diameter (ID): <input checked="" type="checkbox"/> 2-inch <input type="checkbox"/> 4-inch Other: |
| Site Remarks (nearby wells pumping, tide, stream stage, etc.)                       |  |

**Water Level Data** Measurement Units: ft. Well or Borehole Total Depth (TD) from TOC: 14.36

| x E-Tape, # 2<br><input type="checkbox"/> Steel Tape <input type="checkbox"/> Other  | Pre-Purge Initial | Pre-Purge Confirmation | Purging Start | During Purging | Purging End | After Sampling | Remarks |
|--|-------------------|------------------------|---------------|----------------|-------------|----------------|---------|
| Time (hh:mm; 24-hr clock)  | <u>0549</u>       | <u>0549</u>            | <u>0908</u>   | <u>0915</u>    | <u>0916</u> | <u>0921</u>    |         |
| Depth to Water   | <u>9.00</u>       | <u>9.00</u>            | <u>9.00</u>   | <u>9.49</u>    | <u>9.51</u> | <u>9.52</u>    |         |
| Tape Correction  |                   |                        |               |                |             |                |         |
| Water Level (WL)   | <u>9.00</u>       | <u>9.00</u>            | <u>9.00</u>   | <u>9.49</u>    | <u>9.51</u> | <u>9.52</u>    |         |
| Product Thickness  |                   |                        |               |                |             |                |         |
| Product Recovery<br><input type="checkbox"/> gallons <input type="checkbox"/> liters |                   |                        |               |                |             |                |         |

Measure water level from fixed measuring point (MP) or top of well casing (TOC). Record water depth to nearest 0.01 ft or 0.002 m, with minus (-) sign if level is above MP or TOC. If no mark on MP or TOC, measure water level from north side of casing. Measure static or pre-purging water level twice; record initial and confirmation measurements and measurement times (in 24-hour clock format). MP/TOC Stickup measurement is from ground surface to nearest 0.1 ft or 0.01 m. Depth to Water codes: N - not measured; D - dry; O - obstructed; P - pumping; F - flowing (artesian well); R - recently pumped; C - cascading. Water Level (WL) = Depth to Water - Tape Correction factor. Record free product presence at time of water level measurement; use "S" for free product thickness if sheen observed. If free product removed from well, record volume removed in gallons or liters, list product type in "Remarks" column.

**Field WQ Data** Purge Depth: 9.00 ☐ Grab ☐ Bailor ☒ Pump Description:

|  |             |             |             |  |  |         |  |                           |
|--|-------------|-------------|-------------|--|--|---------|--|---------------------------|
| Casing Volume: $[14.36 \text{ (TD)} - \text{ (WL)}] \cdot [ \text{ (Well ID)} ]^2 \cdot [ \text{ (Conversion Factor)} ] = \underline{0.87} \text{ gals}$ |             |             |             |  |  |         | Well Goes Dry While Purging <input type="checkbox"/> |                           |
| Conversion Factor = 0.0408 for feet and gallons; 0.1544 for feet and liters; 0.5066 for meters and liters; Well ID in inches                             |             |             |             |  |  |         |  |                           |
| <input type="checkbox"/> Cum. Vol. Purged  | <u>0.87</u> | <u>1.74</u> | <u>2.61</u> |  |  | (Final) | Meter Type   | Remarks                   |
| <input type="checkbox"/> Pumping Rate  |             |             |             |  |  |         |  |                           |
| Time (hh:mm; 24-hr clock)  | <u>0912</u> | <u>0914</u> | <u>0915</u> |  |  |         |  |                           |
| pH (Temperature Corrected? <input type="checkbox"/> )  | <u>6.85</u> | <u>6.85</u> | <u>6.8</u>  |  |  |         | OAKTON   | 4.0/7.0/10.0 Buffers      |
| Temperature, °C  | <u>11</u>   | <u>11</u>   | <u>11</u>   |  |  |         |  |                           |
| Dissolved Oxygen mg/L  |             |             |             |  |  |         |  |                           |
| S Conductivity $\mu\text{S/cm}$  | <u>1369</u> | <u>1371</u> | <u>1379</u> |  |  |         | OAKTON   | <u>1413</u><br><u>498</u> |
| Turbidity <input type="checkbox"/> NTU   |             |             |             |  |  |         |  |                           |
| Color/Tint   | <u>NC</u>   | <u>NC</u>   | <u>NC</u>   |  |  |         |  |                           |
| Odor   | <u>NC</u>   | <u>NC</u>   | <u>NC</u>   |  |  |         |  |                           |

Record time purging starts and ends in "Purging Start" and "Purging End" columns in Water Level Data section. Cum. Vol. Purged: cumulative volume removed before sampling, in gallons or liters. Pumping Rate is gpm or Lpm, depending on box checked in casing volume calculation. Use "Final" column above for recording sample field measurements, total volume purged before sampling or average pumping rate during purging. Record equipment calibration methods, decontamination procedures, equipment failures, purge water disposal method, etc. in daily field notes. SC: Specific Conductance corrected for temperature ( $\mu\text{S/cm}$  at 25°C); EC: Electrical Conductivity not corrected for temperature ( $\mu\text{S/cm}$ ).  $\mu\text{S/cm} = \mu\text{mho/cm}$ . 1 gallon (US) = 3.785 L = 0.833 Imperial gallon

**Sample Data** Sample Depth: 9.52 ☐ Grab ☐ Bailor ☒ Pump Description:

| Field Sample ID<br>(unique ID on bottles) | Result Code | Date<br>(m/d/y) | Time<br>(hh:mm) | Bottles<br>(total to lab) | Filtered<br>(0.45 $\mu\text{m}$ ) | Lab ID | Case ID | SDG ID | Remarks |
|---|-------------|-----------------|-----------------|---------------------------|-----------------------------------|--------|---------|--------|---------|
| <u>QWS 2</u>                              |             | <u>02 21 08</u> | <u>0921</u>     | <u>6</u>                  |                                   |        |         |        |         |
|   |             |                 |                 |                           |                                   |        |         |        |         |
|   |             |                 |                 |                           |                                   |        |         |        |         |
|   |             |                 |                 |                           |                                   |        |         |        |         |

Sample ID may be up to 15 characters. Sample Result Code, Date, and Time must be entered. Result Codes: P0, Primary Sample; D#, Duplicate Sample; S#, Split Sample (sent to second lab); BF#, Field Blank; BR#, Equipment Rinse; BT#, Trip Blank; SF#, Field Spike (# = 1 to 9). Lab ID (up to 5 characters) is name of laboratory that will analyze the sample. Case ID (up to 5 characters) and SDG ID (sample delivery group, up to 15 characters) are required for blanks. Case ID may be the lab service request number or yy-mm. SDG may be lab's SDG, a cooler ID number, or mnddy. Enter sample preservation and handling data on chain-of-custody form. Also record detailed information about duplicate, split, rinse, spike, and/or blank sample collection/handling in daily field notes.

|   |                             |
|---|-----------------------------|
| Sampler's Name (print) <u>N. Lgoe / Fox</u> | Signature <u>Bob Hilgoe</u> |
|---|-----------------------------|



# Environment 1, Inc.

|  |                               |                               |
|--|-------------------------------|-------------------------------|
| <b>Sampled By</b> <input checked="" type="checkbox"/> Bob Hilgoe <input checked="" type="checkbox"/> Bobby Fox<br>Other: | <b>Facility</b> NEW BERN N.C. | <b>Site ID</b> 6017           |
|  | <b>Project No.</b>            | <b>Date (m/d/y)</b> FEB 21 08 |

**Site Description** ☒ Monitoring Well ☐ Extraction Well ☐ Irrigation Well ☐ Spring ☐ Borehole ☐ Probe Other:

|  |
|--|
| <b>Air Temp:</b> 38 °C <input type="checkbox"/> °F Weather: CLEAR  |
| <b>Well Locked?</b> <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <b>Damaged/Repairs Needed:</b>           |
| <b>x TOC Description:</b>  |
| <b>TOC Stickup:</b> 229 ft. above/below ground <b>Well Inside Diameter (ID):</b> x 2-inch <input type="checkbox"/> 4-inch Other: |
| <b>Site Remarks</b> (nearby wells pumping, tide, stream stage, etc.)   |

**Water Level Data** Measurement Units: ft. Well or Borehole Total Depth (TD) from TOC: 16.23

| <input checked="" type="checkbox"/> E-Tape, #2<br><input type="checkbox"/> Steel Tape <input type="checkbox"/> Other | Pre-Purge Initial | Pre-Purge Confirmation | Purging Start | During Purging | Purging End | After Sampling | Remarks |
|--|-------------------|------------------------|---------------|----------------|-------------|----------------|---------|
| Time (hh:mm; 24-hr clock)  | 0940              | 0940                   | 0942          | 0946           | 0948        | 0951           |         |
| Depth to Water   | 7.40              | 7.40                   | 7.40          | 9.69           | 9.93        | 9.95           |         |
| Tape Correction  |                   |                        |               |                |             |                |         |
| Water Level (WL)   | 7.40              | 7.40                   | 7.40          | 9.69           | 9.93        | 9.95           |         |
| Product Thickness  |                   |                        |               |                |             |                |         |
| Product Recovery   |                   |                        |               |                |             |                |         |
| <input type="checkbox"/> gallons <input type="checkbox"/> liters   |                   |                        |               |                |             |                |         |

Measure water level from fixed measuring point (MP) or top of well casing (TOC). Record water depth to nearest 0.01 ft or 0.002 m, with minus (-) sign if level is above MP or TOC. If no mark on MP or TOC, measure water level from north side of casing. Measure static or pre-purging water level twice; record initial and confirmation measurements and measurement times (in 24-hour clock format). MP/TOC Stickup measurement is from ground surface to nearest 0.1 ft or 0.01 m. Depth to Water codes: N - not measured; D - dry; O - obstructed; P - pumping; F - flowing (artesian well); R - recently pumped; C - cascading. Water Level (WL) = Depth to Water - Tape Correction factor. Record free product presence at time of water level measurement; use "S" for free product thickness if seen observed. If free product removed from well, record volume removed in gallons or liters, list product type in "Remarks" column.

**Field WQ Data** Purge Depth: 7.40 ☐ Grab ☐ Bailor ☒ Pump Description:

|  |      |      |      |  |  |         |   |                      |
|--|------|------|------|--|--|---------|---|----------------------|
| <b>Casing Volume:</b> $[16.23(TD) - (WL)] \cdot [(Well ID)]^2 \cdot (Conversion Factor) = 1.44$ gals<br>Conversion Factor = 0.0408 for feet and gallons; 0.1544 for feet and liters; 0.5066 for meters and liters; Well ID in inches |      |      |      |  |  |         | <b>Well Goes Dry While Purging</b> <input type="checkbox"/> |                      |
| <input type="checkbox"/> Cum. Vol. Purged<br><input type="checkbox"/> Pumping Rate   | 1.44 | 2.88 | 4.32 |  |  | (Final) | Meter Type  | Remarks              |
| Time (hh:mm; 24-hr clock)  | 0944 | 0946 | 0948 |  |  |         |   |                      |
| pH (Temperature Corrected? <input type="checkbox"/> )  | 6.19 | 6.14 | 6.1  |  |  |         | OAKTON  | 4.0/7.0/10.0 Buffers |
| Temperature, °C  | 15   | 14   | 14   |  |  |         |   |                      |
| Dissolved Oxygen mg/L  |      |      |      |  |  |         |   |                      |
| S Conductivity µS/cm   | 675  | 692  | 693  |  |  |         | OAKTON  | 1473<br>498          |
| Turbidity <input type="checkbox"/> NTU   |      |      |      |  |  |         |   |                      |
| Color/Tint   | N/C  | N/C  | N/C  |  |  |         |   |                      |
| Odor   | N/C  | N/C  | N/C  |  |  |         |   |                      |

Record time purging starts and ends in "Purging Start" and "Purging End" columns in Water Level Data section. Cum. Vol. Purged: cumulative volume removed before sampling, in gallons or liters. Pumping Rate is gpm or Lpm, depending on box checked in casing volume calculation. Use "Final" column above for recording sample field measurements, total volume purged before sampling or average pumping rate during purging. Record equipment calibration methods, decontamination procedures, equipment failures, purge water disposal method, etc. in daily field notes. SC: Specific Conductance corrected for temperature (µS/cm at 25°C); EC: Electrical Conductivity not corrected for temperature (µS/cm). µS/cm = µmho/cm. 1 gallon (US) = 3.785 L = 0.833 Imperial gallon

**Sample Data** Sample Depth: 9.95 ☐ Grab ☐ Bailor ☒ Pump Description:

| Field Sample ID<br>(unique ID on bottles) | Result Code | Date<br>(m/d/y) | Time<br>(hh:mm) | Bottles<br>(total to lab) | Filtered<br>(0.45 µm) | Lab ID | Case ID | SDG ID | Remarks |
|---|-------------|-----------------|-----------------|---------------------------|-----------------------|--------|---------|--------|---------|
| 0653                                      |             | 020108          | 0951            | 6                         |                       |        |         |        |         |
|   |             |                 |                 |                           |                       |        |         |        |         |
|   |             |                 |                 |                           |                       |        |         |        |         |
|   |             |                 |                 |                           |                       |        |         |        |         |

Sample ID may be up to 15 characters. Sample Result Code, Date, and Time must be entered. Result Codes: P0, Primary Sample; D#, Duplicate Sample; S#, Split Sample (sent to second lab); BF#, Field Blank; BR#, Equipment Rinsate; BT#, Trip Blank; SF#, Field Spike (# = 1 to 9). Lab ID (up to 5 characters) is name of laboratory that will analyze the sample. Case ID (up to 5 characters) and SDG ID (sample delivery group, up to 15 characters) are required for blanks. Case ID may be the lab service request number or yy-mm. SDG may be lab's SDG, a cooler ID number, or mmdydy. Enter sample preservation and handling data on chain-of-custody form. Also record detailed information about duplicate, split, rinsate, spike, and/or blank sample collection/handling in daily field notes.

|   |                             |
|---|-----------------------------|
| <b>Sampler's Name</b> (print) H. LGOE / Fat | <b>Signature</b> Bob Hilgoe |
|---|-----------------------------|

# Environment 1, Inc.

|   |                               |                               |
|---|-------------------------------|-------------------------------|
| <b>Sampled By</b> <input type="checkbox"/> Bob Hilgoe <input checked="" type="checkbox"/> Bobby Fox<br>Other: | <b>Facility</b> NEW BERN N.C. | <b>Site ID</b> 6017           |
|   | <b>Project No.</b>            | <b>Date (m/d/y)</b> FEB 21 08 |

**Site Description** ☒ Monitoring Well ☐ Extraction Well ☐ Irrigation Well ☐ Spring ☐ Borehole ☐ Probe Other:

|   |   |
|---|---|
| <b>Air Temp:</b> 36 °C <input type="checkbox"/> °F                                      | <b>Weather:</b> CLEAR   |
| <b>Well Locked?</b> <input checked="" type="checkbox"/> yes <input type="checkbox"/> no | <b>Damaged/Repairs Needed:</b>  |
| <b>x TOC Description:</b>   |   |
| <b>TOC Stickup:</b> 2.12 ft. above/below ground   | <b>Well Inside Diameter (ID):</b> <input checked="" type="checkbox"/> 2-inch <input type="checkbox"/> 4-inch Other: |
| <b>Site Remarks</b> (nearby wells pumping, tide, stream stage, etc.)                    |   |

**Water Level Data** Measurement Units: ft. Well or Borehole Total Depth (TD) from TOC: 26.43

| <input checked="" type="checkbox"/> E-Tape, #2<br><input type="checkbox"/> Steel Tape <input type="checkbox"/> Other | Pre-Purge Initial | Pre-Purge Confirmation | Purging Start | During Purging | Purging End | After Sampling | Remarks |
|--|-------------------|------------------------|---------------|----------------|-------------|----------------|---------|
| Time (hh:mm; 24-hr clock)  | 0848              | 0848                   | 0850          | 0859           | 0900        | 0904           |         |
| Depth to Water   | 9.10              | 9.10                   | 9.10          | 10.04          | 10.21       | 10.22          |         |
| Tape Correction  |                   |                        |               |                |             |                |         |
| Water Level (WL)   | 9.10              | 9.10                   | 9.10          | 10.04          | 10.21       | 10.22          |         |
| Product Thickness  |                   |                        |               |                |             |                |         |
| Product Recovery<br><input type="checkbox"/> gallons <input type="checkbox"/> liters                                 |                   |                        |               |                |             |                |         |

Measure water level from fixed measuring point (MP) or top of well casing (TOC). Record water depth to nearest 0.01 ft or 0.002 m, with minus (-) sign if level is above MP or TOC. If no mark on MP or TOC, measure water level from north side of casing. Measure static or pre-purging water level twice; record initial and confirmation measurements and measurement times (in 24-hour clock format). MP/TOC Stickup measurement is from ground surface to nearest 0.1 ft or 0.01 m. Depth to Water codes: N - not measured; D - dry; O - obstructed; P - pumping; F - flowing (artesian well); R - recently pumped; C - cascading. Water Level (WL) = Depth to Water - Tape Correction factor. Record free product presence at time of water level measurement; use "S" for free product thickness if sheen observed. If free product removed from well, record volume removed in gallons or liters, list product type in "Remarks" column.

**Field WQ Data** Purge Depth: 9.10 ☐ Grab ☐ Bailor ☒ Pump Description:

|  |      |      |      |  |  |         |   |                      |
|--|------|------|------|--|--|---------|---|----------------------|
| <b>Casing Volume:</b> 26.43 (TD) - (WL) • [(Well ID)] <sup>2</sup> • (Conversion Factor) = 2.13 gals<br>Conversion Factor = 0.0408 for feet and gallons; 0.1544 for feet and liters; 0.5066 for meters and liters; Well ID in inches |      |      |      |  |  |         | <b>Well Goes Dry While Purging</b> <input type="checkbox"/> |                      |
| <input type="checkbox"/> Cum. Vol. Purged  | 2.53 | 3.66 | 5.19 |  |  | (Final) | Meter Type  | Remarks              |
| <input type="checkbox"/> Pumping Rate  |      |      |      |  |  |         |   |                      |
| Time (hh:mm; 24-hr clock)  | 0855 | 0857 | 0900 |  |  |         |   |                      |
| pH (Temperature Corrected? <input type="checkbox"/> )  | 6.89 | 6.82 | 6.8  |  |  |         | OAKTON  | 4.0/7.0/10.0 Buffers |
| Temperature, °C  | 14   | 14   | 14   |  |  |         |   |                      |
| Dissolved Oxygen mg/L  |      |      |      |  |  |         |   |                      |
| S Conductivity µS/cm   | 729  | 735  | 727  |  |  |         | OAKTON  | 14.13 / 498          |
| Turbidity <input type="checkbox"/> NTU   |      |      |      |  |  |         |   |                      |
| Color/Tint   | NC   | NC   | NC   |  |  |         |   |                      |
| Odor   | NC   | NC   | NC   |  |  |         |   |                      |

Record time purging starts and ends in "Purging Start" and "Purging End" columns in Water Level Data section. Cum. Vol. Purged: cumulative volume removed before sampling, in gallons or liters. Pumping Rate is gpm or Lpm, depending on box checked in casing volume calculation. Use "Final" column above for recording sample field measurements, total volume purged before sampling or average pumping rate during purging. Record equipment calibration methods, decontamination procedures, equipment failures, purge water disposal method, etc. in daily field notes. SC: Specific Conductance corrected for temperature (µS/cm at 25°C); EC: Electrical Conductivity not corrected for temperature (µS/cm). µS/cm = µmho/cm. 1 gallon (US) = 3.785 L = 0.833 Imperial gallon

**Sample Data** Sample Depth: 10.22 ☐ Grab ☐ Bailor ☒ Pump Description:

| Field Sample ID<br>(unique ID on bottles) | Result Code | Date<br>(m/d/y) | Time<br>(hh:mm) | Bottles<br>(total to lab) | Filtered<br>(0.45 µm) | Lab ID | Case ID | SDG ID | Remarks |
|---|-------------|-----------------|-----------------|---------------------------|-----------------------|--------|---------|--------|---------|
| 0W01                                      |             | 02/21/08        | 0904            | 6                         |                       |        |         |        |         |
|   |             |                 |                 |                           |                       |        |         |        |         |
|   |             |                 |                 |                           |                       |        |         |        |         |
|   |             |                 |                 |                           |                       |        |         |        |         |

Sample ID may be up to 15 characters. Sample Result Code, Date, and Time must be entered. Result Codes: P0, Primary Sample; D#, Duplicate Sample; S#, Split Sample (sent to second lab); BF#, Field Blank; BR#, Equipment Rinse; BT#, Trip Blank; SF#, Field Spike (# = 1 to 9). Lab ID (up to 5 characters) is name of laboratory that will analyze the sample. Case ID (up to 5 characters) and SDG ID (sample delivery group, up to 15 characters) are required for blanks. Case ID may be the lab service request number or yy-mm. SDG may be lab's SDG, a cooler ID number, or mmdyyy. Enter sample preservation and handling data on chain-of-custody form. Also record detailed information about duplicate, split, rinse, spike, and/or blank sample collection/handling in daily field notes.

|   |                             |
|---|-----------------------------|
| <b>Sampler's Name (print)</b> N. Hilgoe / Fox | <b>Signature</b> Bob Hilgoe |
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Lab ID# 6017

**\*\* Note:** NC 2L STD = NC 2L Ground Water Standard  
NC GWP STD = NC Solid Waste Groundwater Protection Standard  
NC 2B SWS = NC 2B Surface Water Standard